

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for ~~synchronous~~ serial communication ~~comprising the step of transmitting data serially through data lines in synchrony with timing signals sent through clock line, wherein:~~

~~if it is required to transmit a specified length of serial data, the data receiving component is caused to store the specified length of serial data previously received; and~~

there are available a first mode, ~~or the conventional synchronous~~ which is a serial communication under which data are transmitted without being divided into blocks, and a second mode under which data to be transmitted are divided into blocks, firstly transmitted is block information notifying the block(s) to be transmitted, and ~~then~~ secondly transmitted are the data included in the block(s) notified by the block information, and, on the data ~~for the block(s) in which data remain unchanged,~~ included in the block(s) not notified, the corresponding previous data stored in ~~the~~ a data receiving component are used; and

~~the number of clock signals~~ time required for ~~the~~ a data transmission based on the first mode, ~~the number of clock signals~~ and time required for the data transmission based on the second mode are calculated, and compared, and

transmission of the data is achieved through the mode that is found to ~~give the~~
~~less number of clock signals~~ have less time for transmission of the data.

2. (Currently Amended) A method for ~~synchronous~~ serial communication as described in claim 1, wherein ~~the~~ block information which is currently transmitted is compared with ~~the~~ block information which was previously transmitted, and, ~~if~~ when it is found the block(s) in which data are currently changed is (are) the same with the block(s) in which data were previously changed, a third mode is chosen under which the current block information is omitted, and the data included in the block(s) corresponding to the one(s) of the previous block information are transmitted ~~in suecession~~, and, on the data for other block(s), the corresponding previous data stored in the data receiving component are used, and

data is sent/received in the mode with the least time for transmission among time for transmission in the first, second or third mode.

3. (Currently Amended) A method for ~~synchronous~~ serial communication as described in claim 1, wherein, ~~if~~ when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

4. (Currently Amended) A method for ~~asynchronous~~ synchronous serial communication as described in claim 1, 2, 3 or 9, wherein the serial data are divided into blocks by bytes.

5. (Currently Amended) A system for ~~asynchronous~~ synchronous serial communication which comprises a data transmitting component comprising:

a storage means to store data fed by an external device;

a decision means to calculate ~~the~~ a number of clock signals required for the transmission of said data for each of ~~the~~ a number of transmission modes ~~above~~, and to decide which mode will allow the transmission of said data to occur in the least number of clock signals; and

an output means to choose the mode which has been decided by the decision means as allowing the transmission of said data to occur in the least number of clock signals, to read said data stored in the storage means, and to transmit said data through the communication mode thus chosen.

6. (Currently Amended) A system for ~~asynchronous~~ synchronous serial communication which comprises a data receiving component comprising:

a storage means to store data;

an analysis means to identify ~~the~~ a communication mode of received data based on ~~the~~ a received mode information; and

a control means to cause the received data to be stored in the storage means according to the mode identified by the analysis means.

7. (Currently Amended) A method for ~~synch~~ronous serial communication as described in claim 1, 2, 3 or 9, wherein, if when it is required to transmit a command which concerns with the treatment of data already transmitted, firstly transmitted is command data indicating the current data carries a command concerning with the treatment of the data already transmitted, and then transmitted is said block information from which it is possible to identify the block(s) to be treated out of the data previously transmitted.

8. (Currently Amended) A method for ~~synch~~ronous serial communication as described in claim 7, wherein said command includes at least either an invert command or a bit ~~shaft~~ shift command.

9. (Currently Amended) A method for ~~synch~~ronous serial communication as described in claim 2, wherein, if when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

10. (Currently Amended) A method for ~~synch~~ronous serial communication as described in claim 5, wherein, if when it is required to transmit a command which concerns with the treatment of data already transmitted, firstly transmitted is command data indicating the current data carries a command concerning with the treatment of the data already transmitted, and then transmitted is said block information from which it is possible to identify the block(s) to be treated out of the data previously transmitted.

11. (Currently Amended) A method for ~~synch~~ronous serial communication as described in claim 10, wherein said command includes at least either an invert command or a bit ~~shaft~~ shift command.

12. (Currently Amended) A system for ~~synch~~ronous serial communication which comprises a data transmitting component comprising:

a memory coupled to receive and store data fed by an external device;

a processing unit which calculates ~~the~~ a number of clock signals required for the transmission of said data for each of ~~the~~ a number of transmission modes ~~above~~, and decides which mode will allow the transmission of said data to occur in the least number of clock signals; and

a selector unit, which selects a mode which has been decided by the processing unit, to read said data stored in the memory, and to transmit said data through the communication mode thus chosen.

13. (Currently Amended) A system for ~~synch~~ronous serial communication which comprises a data receiving component comprising:

a memory which stores data;

an analysis unit which identifies a communication mode of received data based on ~~the~~ received mode information; and

a control unit which causes the received data to be stored in the memory according to the mode identified by the analysis unit.

14. (New) The system of claim 5, wherein:

there are available a first mode, which is a serial communication under which data are transmitted without being divided into blocks, and a second mode under which data to be transmitted are divided into blocks, firstly transmitted is block information notifying the block(s) to be transmitted, and secondly transmitted are the data included in the block(s) notified by the block information, and, on the data included in the block(s) not notified, the corresponding previous data stored in a data receiving component are used; and

time required for a data transmission based on the first mode, and time required for the data transmission based on the second mode are calculated, and

compared, and transmission of the data is achieved through the mode that is found have less time for transmission of the data.

15. (New) The system of claim 14, wherein, when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

16. (New) The system of claim 14, wherein the serial data are divided into blocks by bytes.

17. (New) The system of claim 6, wherein:

there are available a first mode, which is a serial communication under which data are transmitted without being divided into blocks, and a second mode under which data to be transmitted are divided into blocks, firstly transmitted is block information notifying the block(s) to be transmitted, and secondly transmitted are the data included in the block(s) notified by the block information, and, on the data included in the block(s) not notified, the corresponding previous data stored in a data receiving component are used; and

time required for a data transmission based on the first mode, and time required for the data transmission based on the second mode are calculated, and compared, and transmission of the data is achieved through the mode that is found have less time for transmission of the data.

18. (New) The system of claim 17, wherein, when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

19. (New) The system of claim 17, wherein the serial data are divided into blocks by bytes.

20. (New) The system of claim 12, wherein:

there are available a first mode, which is a serial communication under which data are transmitted without being divided into blocks, and a second mode under which data to be transmitted are divided into blocks, firstly transmitted is block information notifying the block(s) to be transmitted, and secondly transmitted are the data included in the block(s) notified by the block information, and, on the data included in the block(s) not notified, the corresponding previous data stored in a data receiving component are used; and

time required for a data transmission based on the first mode, and time required for the data transmission based on the second mode are calculated, and compared, and transmission of the data is achieved through the mode that is found have less time for transmission of the data.

21. (New) The system of claim 20, wherein, when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

22. (New) The system of claim 20, wherein the serial data are divided into blocks by bytes.

23. (New) The system of claim 13, wherein:
there are available a first mode, which is a serial communication under which data are transmitted without being divided into blocks, and a second mode under which data to be transmitted are divided into blocks, firstly transmitted is block information notifying the block(s) to be transmitted, and secondly transmitted are the data included in the block(s) notified by the block information, and, on the data included in the block(s) not notified, the corresponding previous data stored in a data receiving component are used; and
time required for a data transmission based on the first mode, and time required for the data transmission based on the second mode are calculated, and compared, and transmission of the data is achieved through the mode that is found have less time for transmission of the data.

24. (New) The system of claim 23, wherein, when it is required to transmit data, mode information notifying under which mode the transmission of the data will be achieved is attached to the data to be transmitted.

25. (New) The system of claim 23, wherein the serial data are divided into blocks by bytes.